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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MAKI, STEVEN D	

ART UNIT	PAPER NUMBER
1791	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/560,890	STEINBACH, GUNTER	
	Examiner	Art Unit	
	Steven D. Maki	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 February 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *38-51 and 53-75* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *38-51 and 53-75* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1) The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2) Claims 65-66 and 68-75 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 65, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is providing a central zone of the tread band of the front motorcycle tire with a sea/land ratio greater than or equal to about 15%.

The original disclosure describes the central zone of the tread band of the front tire having a sea/land ratio of about 15% to about 30% instead of greater than or equal to about 15%.

In claim 75, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is each of the intermediate zones [of the rear motorcycle tire] has a sea/land ratio greater than or equal to about 15%.

The original disclosure describes each intermediate side zones of the rear tire having a sea/land ratio of about 10% to about 30% instead of greater than or equal to about 15%.

3) The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4) Claims 65-74 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 65 is indefinite because the preamble recites "A method of improving performance on both wet and dry ground of a motorcycle, the motorcycle comprising a pair of pneumatic motorcycle tires mounted on respective front and rear wheels of the motorcycle" whereas the body describes only "providing" steps. Thus, claim 65 is indefinite because it appears to fail to require an active/positive method step such as mounting the tires. It is suggested to appropriately amend claim 65 to recite a step of mounting the tires on the motorcycle. With respect to "to enhance", it is unclear from what the specified capacity is enhanced.

With respect to the description of "enhancing" (claims 66, 67, 68 and 72), it is uncertain if the enhancing steps are active method steps. Furthermore, it is unclear from what the specified capacity is enhanced.

5) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6) **Claims 38-51, 53-58, 61 and 63-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armellin (US 6,244,315) in view of Haas (US 4,606,389) or Japan 215 (JP 6-183215) and further in view of Japan 218 (JP 11-208218) or Japan 907 (JP 63-116907) and optionally further in view of optionally German 624 (DE 3901624).**

Armellin, directed to motorcycle tires, discloses a front motorcycle tire having a size such as 120/70ZR17 and a rear motorcycle tire having a size such as 180/55ZR17. Armellin teaches mounting the front motorcycle tire and rear motorcycle tire on a motorcycle. Armellin teaches that the front and rear tires have a transverse curvature coefficient of at least 0.15 and that the transverse curvature of the front tire is greater than the transverse curvature of the rear tire to obtain good stability and good maneuverability. Thus, the rear motorcycle tire has a curvature ratio lower than the front motorcycle tire. Armellin et al shows the tread of the front tire having grooves. See Figure 1 and col. 8 lines 19-23. Armellin et al does not specifically providing the front motorcycle tire with a circumferential grooves and transverse grooves wherein the transverse grooves are connected to the circumferential groove.

As to claims 38 and 65, it would have been obvious to one of ordinary skill in the art to provide Armellin's front motorcycle tire with a tread comprising a circumferential groove and transverse grooves wherein the transverse grooves are connected to the circumferential groove since (1) Haas discloses a **front tire for a motorcycle (two wheeled vehicle)** with a tread having a *straight circumferential groove on the equatorial*

plane (centerline) of the tire and inclined grooves on both sides of the circumferential groove wherein the inclined grooves are connected to the circumferential groove and the front tire has reduced danger of aquaplaning (hydroplaning) or (2) Japan 215 discloses a **front tire for a motor scooter (two wheeled vehicle)** with a tread having a *zigzag circumferential groove at the equatorial plane (centerline)* and inclined grooves on both sides of the circumferential groove wherein the inclined grooves are connected to the circumferential groove and the front tire reduces splashing of water in front of the driver and prevents hydroplaning (prevents the tread surface from coming floating on the water screen) . The claimed sea/land ratio of greater than or equal to about 15% (claim 65) would have been obvious and could have been determined without undue experimentation in view of the suggestion from Haas or Japan 215 to use inclined grooves connected to a center circumferential groove to prevent hydroplaning. Thus, the applied prior art to Haas or Japan 215 provides ample motivation (prevention of hydroplaning) to provide the front tire of Armellin's motorcycle tire (tire for two wheeled vehicle) with the claimed front tire tread pattern.

Furthermore, it would have been obvious to provide Armellin's rear motorcycle tire (e.g. having a size such as 180/55ZR17), which provides a thrust of a linear nature rather than a curvilinear nature (col. 2 lines 53-57), with a tread having inclined grooves and a central area defining a substantially null sea/land ratio wherein the central zone of the tread band of the rear tire has a width greater than or equal to about 5% and less than or equal to about 30% of an axial development of the tread band of the rear tire since (1) (a) Japan 218's suggests providing a **rear motorcycle tire having a size**

such as 180/55ZR17 with a tread comprising inclined grooves on both sides of a central area comprising the equatorial plane and having a null sea/land ratio (Figure 1) to improve grip performance at turning or straight line acceleration on a wet road (abstract, machine translation, paragraphs 12, 27 and 29 of machine translation) or (b) Japan 907 suggests using a **rear tire for a two wheeled vehicle** having a tread comprising inclined grooves on both sides of a central area comprising the equatorial plane and having a null sea/land ratio (Figure 2b) and optionally (2) German 624 suggests providing a front tire with a "large" negative ratio (e.g. Figure 6) to reduce aquaplaning and providing a rear tire with a "smaller" negative ratio to improve adhesion (traction). One of ordinary skill in the art would readily appreciate, for example from the optional German 624, that the null sea / land area along the equatorial plane of a tire improves adhesion (traction). The suggestion to use a tire with a tread central region having a null sea/land area for a motorcycle comes from Japan 907 or Japan 218 instead of German 624. One of ordinary skill in the art would find German 624's teachings applicable to a rear motorcycle tire since (1) German 624 teaches that the front tire displaces water such that it is unnecessary for the rear tire to guide water away to the same degree as the front tire and discloses that the rear tire must develop good adhesion (traction) and (2) a rear tire follows a front tire in both motorcycles and four wheeled vehicles. In any event: German 624 is an optional reference.

Hence, Armellin teaches a front tire for a two wheeled vehicle and a rear tire for a two wheeled vehicle. What should the tread pattern of the front tire be? Answer: A known tread pattern for a front tire for a two wheeled vehicle. See Haas or Japan 215.

What should the tread pattern of the rear tire be? Answer: A known tread pattern for a rear tire for a two wheeled vehicle. See Japan 907 or Japan 218. The use of a known tread pattern for its known intended use (e.g. front tire) obtains only the expected and predictable results (e.g. preventing hydroplaning in the case of a front tire). Furthermore, one of ordinary skill in the art would readily appreciate that different tread patterns should be used for the front tire and rear tire since (1) Armellin teaches that the front tire and rear tire of a motorcycle tire should be different and (2) the optional German 624 informs of ordinary skill in the tire art, which includes tires for two wheeled vehicles (motorcycles) and tires for four wheeled vehicles, that a rear tire tread pattern should be different than the tread pattern of a front tire to optimize aquaplaning (via the use of the front tire) and adhesion (via the use of the rear tire).

As to claims 39-40, note the front tire of either Haas or Japan 215. Claims 39 and 40 fail to require the central zone to have structure different from that disclosed by Haas or Japan 215. The boundaries of the claimed central zone are not defined by tread structure.

As to claim 41, it would have been obvious to provide the intermediate zone of Japan 215's tire with a sea / land ratio of 15-35% in view of Japan 215's teaching to widely space the inclined grooves for draining water. Thus, the claimed sea / land ratio is a result effective variable; it being emphasized that the grooves determine the sea/ land ratio.

As to claims 42-44, the claimed curvilinear shape and inclination angle would have been obvious in view of either the teaching in Haas or Japan 215 to curve the inclined grooves.

As to claim 45, see inclined grooves in figure 2 of Haas.

As to claims 46-47, note inclined grooves of Japan 215.

As to claim 48, see inclined grooves of Haas or Japan 215.

As to claims 49-51, note the zigzag circumferential groove and curved inclined grooves of Japan 215.

As to claims 53-58, 61, 63 and 75, it would have been obvious to provide the rear tire with transverse grooves as claimed since Japan 218 or Japan 907 shows providing the rear tire with curved inclined grooves extending on both sides of the tread from a central zone having a null sea/land ratio. The claimed sea / land ratio (claims 54 and 75) would have been obvious and could have been determined without undue experimentation in view of the particular tread pattern for a rear tire of Japan 907 or Japan 218 and the applied prior art's teaching to use the grooves to improve wet performance. The claimed sea / land ratio is a result effective variable; it being emphasized that the grooves determine the sea/ land ratio. As to claim 63, note the tapered end portion of grooves of Japan 218 or Japan 907.

As to claim 64 and 65, Armellin teaches mounting tires on a two wheeled vehicle (motorcycle tire).

As to claims 66-74, note above comments on the claims dependent on claim 38.

7) **Claims 45-47, 58-60 and 62-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armellin (US 6,244,315) in view of Haas (US 4,606,389) or Japan 215 (JP 6-183215) and further in view of Japan 218 (JP 11-208218) or Japan 907 (JP 63-116907) and further in view of optionally German 624 (DE 3901624) as applied above and optionally further in view of Nakagawa et al (US 6220320) or Japan 307 (JP 63-315307).**

As to claims 45-47, it would have been obvious to provide the front tire of Japan 215 with staggered groups of transverse grooves as claimed in view of (1) Japan 215's teaching to provide inclined grooves on both sides of a tire tread of a front tire for a two wheeled vehicle and (2) either the teaching of Nakagawa et al or Japan 307 to provide staggered groups of transverse inclined grooves on both sides of a motorcycle tire tread.

As to claims 58-60 and 62-63, it would have been obvious to provide the rear tire with staggered groups of transverse grooves as claimed in view of (1) Japan 907's teaching to provide inclined grooves on both sides of a tire tread of a rear tire for a two wheeled vehicle and (2) either the teaching of Nakagawa et al or Japan 307 to provide staggered groups of transverse inclined grooves on both sides of a motorcycle tire tread. As to claims 62 and 63, Nakagawa et al teaches a bridging groove (groove 3b) and tapered end portions for the inclined grooves.

Remarks

8) Applicant's arguments with respect to claims 38-51 and 53-75 have been considered but are moot in view of the new ground(s) of rejection.

9) No claim is allowed.

10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven D. Maki/
Primary Examiner, Art Unit 1791

Steven D. Maki
May 24, 2010